AMENDMENT TO THE CLAIMS

The following claim listing replaces all prior listings and versions of the claims:

LISTING OF CLAIMS

Claims 1 – 6 (Cancelled)

7. (Currently Amended) A signal processing device for receiving original data, the original data having ~~which has~~ been converted into a digital signal in predetermined sampling intervals, compressing the ~~input~~ original data to generate resultant data, and recording the resultant data into a memory, the device comprising:

thinning means for thinning the original data into thinned data having a sampling interval different from the predetermined sampling interval;

determining means for analyzing the original data in predetermined constant intervals, and based on a predetermined criterion, determining which of the original data and the thinned data of the thinning means is selected;

data writing means for writing selected data which is one of the original data and the thinned data of the thinning means, into the memory in the predetermined constant intervals, based on a determination result of the determining means; and

information writing means for writing determination result information of the determining means into the memory,[[;]]

wherein the predetermined criterion of the determining means is determined by comparing a result of calculation of a feature amount of each piece of data within each predetermined sampling interval of the original data, with a predetermined threshold value; and

wherein the feature amount is a sum value of absolute differential values between each adjacent piece of data within each predetermined sampling interval of the original data.

8. (Currently Amended) A signal processing device for receiving original data, the original data having ~~which has~~ been converted into a digital signal in predetermined sampling intervals, compressing the ~~input~~ original data to generate resultant data, and recording the resultant data into a memory, the device comprising:

thinning means for thinning the original data into thinned data having a sampling interval different from the predetermined sampling interval;

determining means for analyzing the original data in predetermined constant intervals, and based on a predetermined criterion, determining which of the original data and the thinned data of the thinning means is selected;

data writing means for writing selected data which is one of the original data and the thinned data of the thinning means, into the memory in the predetermined constant intervals, based on a determination result of the determining means; and

information writing means for writing determination result information of the determining means into the memory,[[;]]

wherein the predetermined criterion of the determining means is determined by comparing a result of calculation of a feature amount of each piece of data within each predetermined sampling interval of the original data, with a predetermined threshold value; and

wherein the feature amount is a maximum value of absolute differential values between each adjacent piece of data within each predetermined sampling interval of the original data.

9. (Currently Amended) A signal processing device for receiving original data, the original data having ~~which has~~ been converted into a digital signal in predetermined sampling intervals, compressing the ~~input~~ original data to generate resultant data, and recording the resultant data into a memory, the device comprising:

thinning means for thinning the original data into thinned data having a sampling interval different from the predetermined sampling interval;

determining means for analyzing the original data in predetermined constant intervals, and based on a predetermined criterion, determining which of the original data and the thinned data of the thinning means is selected;

data writing means for writing selected data which is one of the original data and the thinned data of the thinning means, into the memory in the predetermined constant intervals, based on a determination result of the determining means; and

information writing means for writing determination result information of the determining means into the memory,[[;]]

wherein the predetermined criterion of the determining means is determined by comparing a result of calculation of a feature amount of each piece of data within each predetermined sampling interval of the original data, with a predetermined threshold value; and

wherein the feature amount is a sum value or a maximum value of second-order derivatives between each adjacent piece of data within each predetermined sampling interval of the original data.

10. (Currently Amended) A signal processing device for receiving original data, the original data having ~~which has~~ been converted into a digital signal in predetermined sampling intervals, compressing the ~~input~~ original data to generate resultant data, and recording the resultant data into a memory, the device comprising:

thinning means for thinning the original data into thinned data having a sampling interval different from the predetermined sampling interval;

determining means for analyzing the original data in predetermined constant intervals, and based on a predetermined criterion, determining which of the original data and the thinned data of the thinning means is selected;

data writing means for writing selected data which is one of the original data and the thinned data of the thinning means, into the memory in the predetermined constant intervals, based on a determination result of the determining means; and

information writing means for writing determination result information of the determining means into the memory,[[;]]

wherein the predetermined criterion of the determining means is determined by comparing a result of calculation of a feature amount of each piece of data within each predetermined sampling interval of the original data, with a predetermined threshold value; and

wherein the feature amount is any combination of two or more of a sum value and a maximum value of absolute differential values between each adjacent piece of data within each predetermined sampling interval of the original data, and a sum value or a maximum value of second-order derivatives between the each adjacent piece of data.

11. (Currently Amended) A signal processing device for receiving original data, the original data having ~~which has~~ been converted into a digital signal in predetermined sampling intervals, compressing the ~~input~~ original data to generate resultant data, and recording the resultant data into a memory, the device comprising:

thinning means for thinning the original data into thinned data having a sampling interval different from the predetermined sampling interval;

determining means for analyzing the original data in predetermined constant intervals, and based on a predetermined criterion, determining which of the original data and the thinned data of the thinning means is selected;

data writing means for writing selected data which is one of the original data and the thinned data of the thinning means, into the memory in the predetermined constant intervals, based on a determination result of the determining means; and

information writing means for writing determination result information of the determining means into the memory,[[;]]

wherein the predetermined criterion of the determining means is determined by comparing a result of calculation of a feature amount of each piece of data within each predetermined sampling interval of the original data, with a predetermined threshold value; and

wherein the predetermined threshold value is changed, depending on the feature amount of the original data.

Claims 12 – 14 (Cancelled)